LICENSED FOR PLAY ON THE
VS. SYSTEM BY NINTENDO®
T.M.

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T.M.

VS. TKO Boxing

TM

DATA EAST'S 2-player conversion for the Nintendo® VS. System™ is a KNOCKOUT!

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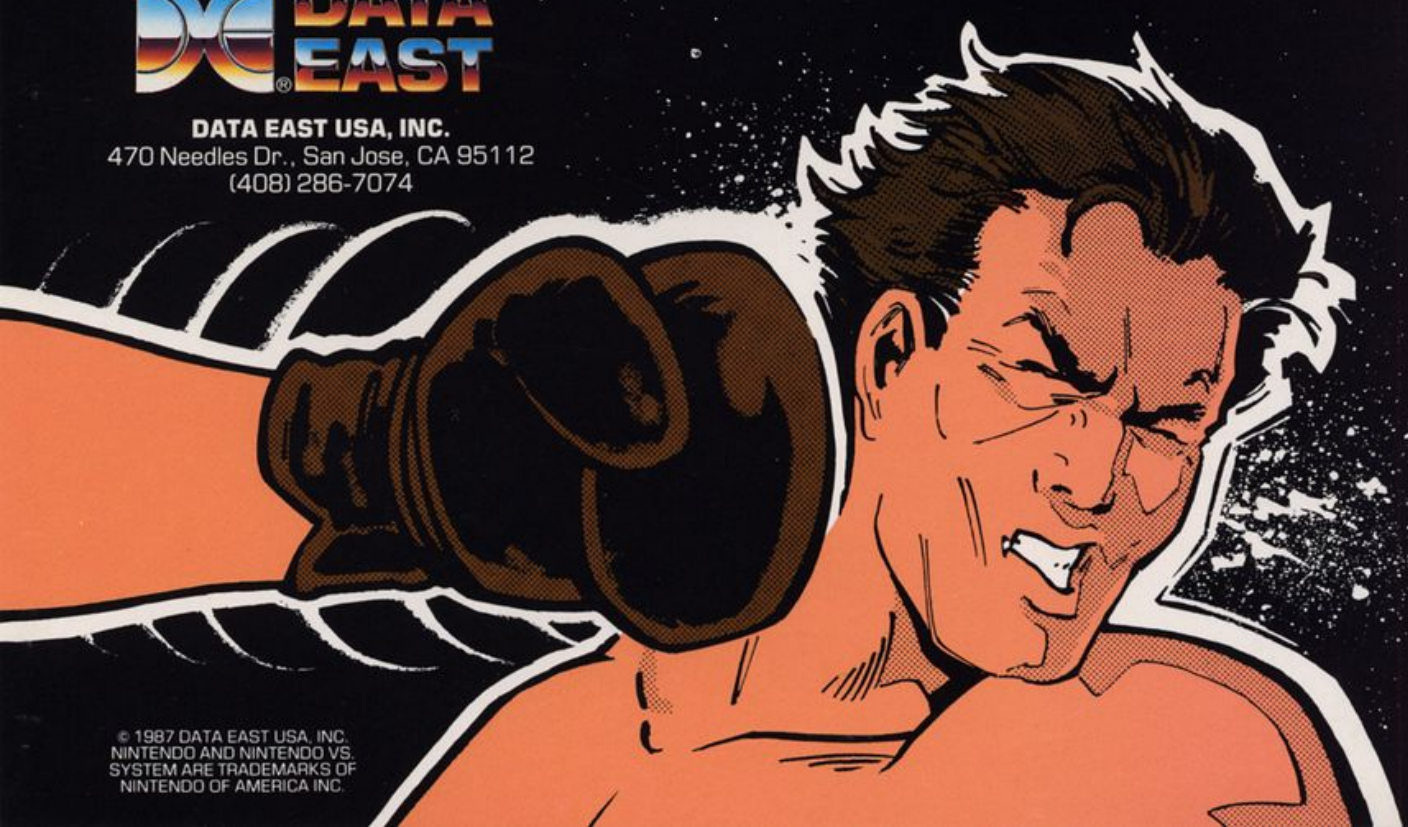

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SYSTEM ARE TRADEMARKS OF
NINTENDO OF AMERICA INC.

VS. TKO Boxing™

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DATA EAST®

LICENSED FOR PLAY ON
THE **VS. SYSTEM*** BY

Nintendo®

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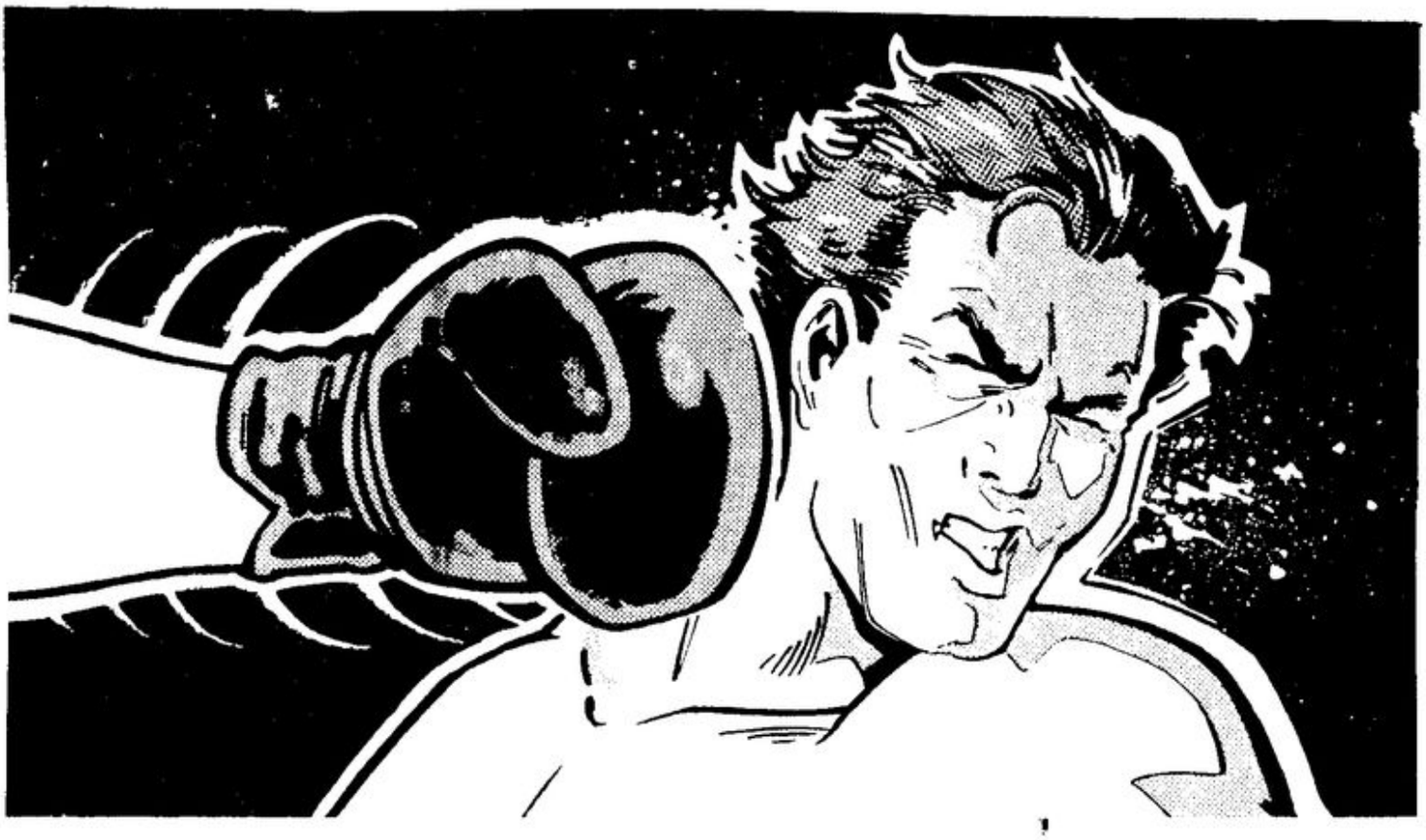
KNOCKOUT YOUR OPPONENT TO BE THE NEW CHAMP!

- A button: PUNCH.
- B button: DUCK.
- AB buttons: ENERGY.
- Choose 1 or 2 players.
- Choose your opponent level from rank 1-15.
- Use training points to increase punch, stamina, and speed.



vs. TKO BOXING

for

Nintendo vs. System, vs. DualSystem, and Table model games

INSTALLATION & SERVICE MANUAL

DATA EAST USA, INC.

470 NEEDLES DRIVE
SAN JOSE, CA 95112
TELEPHONE: (408) 286-7074

780-0071-00

FCC WARNING:

This equipment generates and uses radio frequency energy and if not installed and used properly, ie., in strict accordance with this instructions manual, may cause harmful interference to radio communications.

FBI WARNING:

Federal law provides severe civil and criminal penalties for the unauthorized reproduction, distribution, or exhibition of copyrighted audiovisual works and video games. The Federal Bureau of Investigation investigates allegations of criminal copyright infringement.

TRADEMARK NOTICE:

VS. TKO Boxing is Trademark and Copyright Namco LTD and Data East USA, Inc., all rights reserved. Developed under license from Nintendo for play on the VS. System.

REPLACEMENT PARTS AND SERVICE:

To obtain replacement parts or technical assistance, contact the authorized Data East distributor in your area. If you require referral or further technical assistance, you may contact Data East's Customer Service department during the hours of 8:00 am to 5:00 pm Pacific Time at (408) 286-7074.

TKO BOXING

INSTALLATION & SERVICE MANUAL

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San Jose, CA. 95112
(408) 286-7074

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1. INSTALLATION INSTRUCTIONS.

A. Before You Begin.

Thank you for purchasing this Data East product. This game pak is intended to be installed into any Nintendo Dual-System, Uni-System, or VS. Table-System video game. Check your pak for the components listed below.

1	SUB-BOARD, TKO BOXING	520-0089-00
1	NAMEPLATE OVERLAY	800-0034-00
2	HEADER STRIPS, UNI-SYSTEM	820-0042-00
2	HEADER STRIPS, DUAL-SYSTEM	820-0043-00
1	GAME INSTRUCTION SHEET, TABLE-SYSTEM	406-0071-00
1	INSTRUCTION MANUAL	780-0071-00

B. Graphics.

Remove the marquee glass or plex from the cabinet and carefully remove the Nameplate Overlay.

VS. UNI-SYSTEM ONLY: Install the two top and bottom Header strips to the back of the marquee glass or plex as shown in figure 1.

VS. DUAL-SYSTEM ONLY: Install the Header strips to the right and left rear edges of the glass or plex as shown in figure 1.

Tape the Nameplate Overlay to the Header strips and re-install the glass or plex into the cabinet.

VS. TABLE SYSTEM: Remove the Instruction Plate and replace the existing instruction label with the TKO Boxing Instruction Label as shown in figure 1.

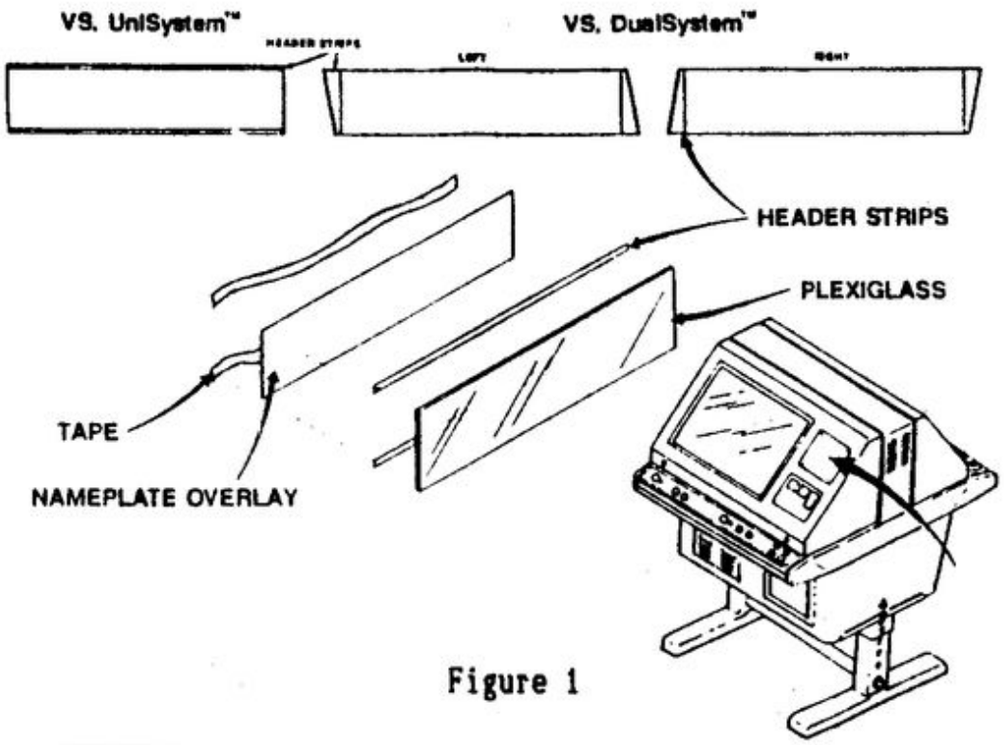

Figure 1

C. Sub-Board.

The VS. TKO Boxing game utilizes a Sub-Board pcb which mounts to the Nintendo MDS pcb and allows the use of larger capacity memory devices in the Nintendo System. Install the Sub-Board using the procedures specified below.

* Remove the Nintendo MDS pcb from the cabinet.

* Remove the existing game program Eproms, PPU, and CPU chips from the side you wish to install the Sub-Board (see specific information below).

* Carefully bend down the Capacitors on the Nintendo MDS pcb at locations C3, C11, C30, and C47 to prevent them from touching the Sub-Board and causing a short circuit.

UNI-SYSTEM: Sub-Board must be installed on the SUB-SIDE, remove Eproms from locations 6A, 6B, 6C, 6D, 8A, and 8B. Remove the PPU and the CPU from locations 8F and 8J.

DUAL-SYSTEM: The Sub-Board can be installed on the MAIN SIDE (Left Screen) or the SUB SIDE (Right Screen). Remove only the Eproms, PPU, and CPU from the side that you select.

IMPORTANT NOTE: Sub-Board option settings MUST be set as follows for the TKO Boxing game software to operate.

Switch 1 = ON, Switch 2 = ON, Switch 3 = ON, Switch 4 = ON.

Position the two 40 pin headers protruding from the solder side of the Sub-Board into the respective 40 pin sockets on the Nintendo MDS pcb. Using the palm of your hand, apply pressure down on to the Sub-Board until it seats securely into the Nintendo MDS pcb's sockets. Install the CPU chip removed from the Nintendo MDS pcb into the CPU socket of the Sub-Board.

Install the standoff and retaining screw to ensure proper contact between the Sub-Board and the Nintendo MDS pcb as shown in Figure 2 to complete the installation.

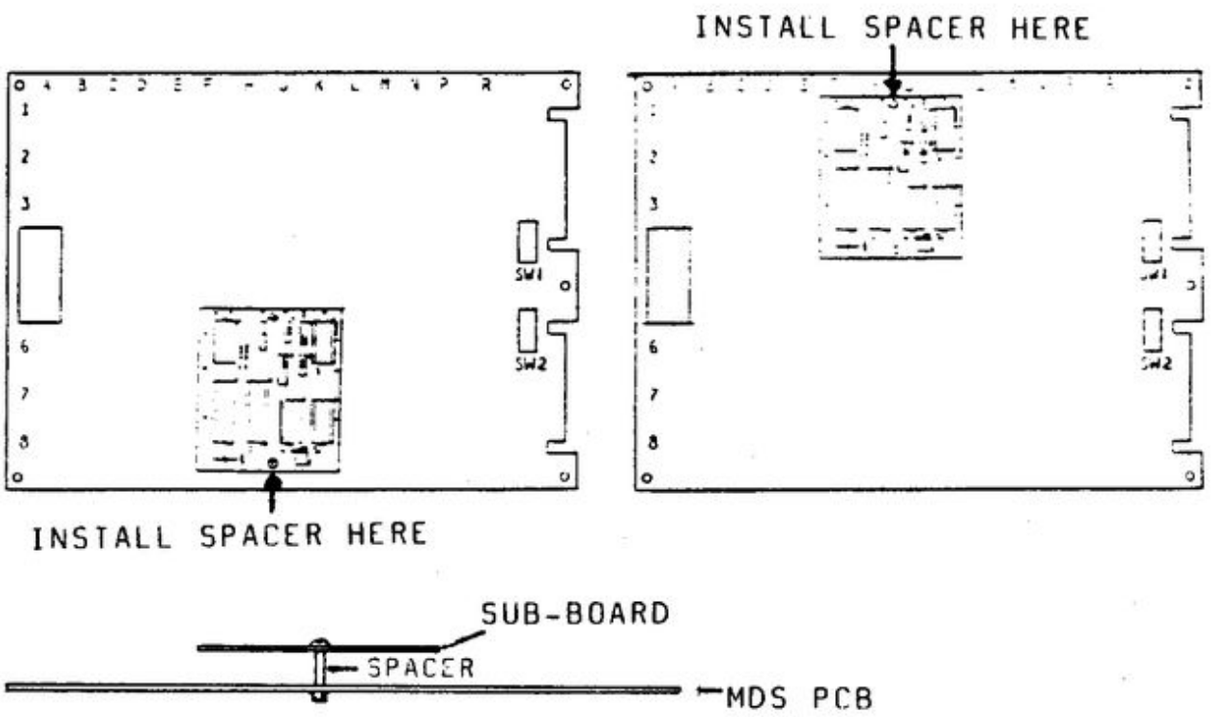

Figure 2

2. GENERAL INFORMATION

A. Operator Selectable options.

The TKO Boxing game contains game play options selectable by changing the settings of a Dip-Switch Bank on the Nintendo MDS pcb. Use SW1 if you have installed the Sub-Board on the MAIN SIDE, and SW2 if you have installed the Sub-Board on the SUB SIDE. The available option settings are shown below in Table 1.

* To change the Dip-switch settings, remove power to the game, open the rear access, and remove the Nintendo MDS pcb from its cage.
* Change the switch positions to the desired settings.
* Re-install the pcb into the cage, making certain that all cabling is plugged in properly and secure.
* Apply power to the game and test for proper game operation.

ITEM	DESCRIPTION	1	2	3	4	5	6	7	8
COIN VS CREDIT	1 COIN = 1 CREDIT:	OFF	OFF						
	1 COIN = 2 CREDIT:	ON	OFF						
	1 COIN = 3 CREDIT:	OFF	ON						
	2 COIN = 1 CREDIT:	ON	ON						
GAME DIFFICULTY	EASY:			OFF	OFF				
	NORMAL:			ON	OFF				
	HARD:			OFF	ON				
	VERY HARD:			ON	ON				
NOT USED						OFF			
P.P.U. SELECTION	RP2C04 0004: TKO BOXING						OFF	OFF	OFF

Table 1

IMPORTANT NOTE: THE P.P.U. SETTING IS CRITICAL FOR PROPER GAME COLORS! BE CERTAIN THAT SWITCHES 6, 7, AND 8 ARE IN THE "OFF" POSITION!!

B. Sub Board Options.

The Namco Sub-Board (see Figure 3) is used to expand the memory capacity of the Nintendo MDS pcb. The Sub-Board contains a 4 position dip-switch that configures the pcb for the specific memory chips (Eproms or Roms) used for a particular game. If the switches on the Sub-Board are not set properly, the game will not operate.

Table 2 outlines the various memory devices that can be utilized by the Sub-Board, and the proper switch settings for each configuration. The device numbers in the table are abbreviated. For example, 64 in the table would be a 2764 Eprom or an equivalent memory device.

PRG 1:	512	512	512	512	256	256	256
PRG 2:	512	256	128	64	256	128	64
SW 1	ON	ON	ON	ON	OFF	OFF	OFF
SW 2	ON	ON	OFF	OFF	ON	OFF	OFF
CHA :	512	256	128	64	--	--	--
SW 3	ON	OFF	OFF	OFF	--	--	--
SW 4	ON	ON	OFF	OFF	--	--	--

TABLE 2

B. Warranty Information.

Data East USA, Inc., ("Seller"), warrants only to the initial purchaser ("Buyer") of its products that the items listed below are free from defects in material and workmanship under normal use and service for the period specified:

SUB-BOARD PCB (AS SUPPLIED IN VS. PAK)	90 DAYS

No other parts of Seller's products are warranted.

Warranty periods are effective from initial date of shipment from Seller to Buyer. Seller's sole liability shall be, at its option, to repair or replace products which are returned to Seller during the warranty periods specified, provided:

1. Seller is notified promptly upon discovery by Buyer that stated products are defective.
2. Such products are properly packaged and then returned freight pre-paid, to Seller's plant.

This warranty does not apply to any parts damaged during shipment and/or due to improper handling, or due to improper installation or usage, or alteration. In no event shall the Seller be liable for any anticipated profits, loss of profits, loss of use, accidental or consequential damages, or any other losses incurred by the customer in connection with the purchase of a Data East USA, Inc., product.

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